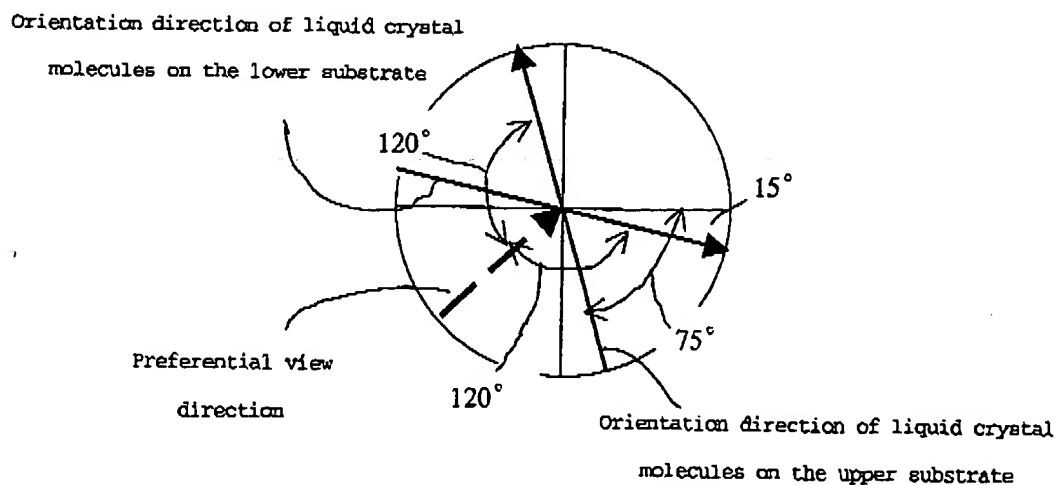


## REMARKS

Claims 1-5 and 7-14 remain in the case. The potential allowability of claims 3, 5, 7, 8, 12, and 13 is noted with appreciation. It is submitted dependent claim 14 should also be potentially allowable because it was not rejected on prior art.

Claim 1 has been amended to place the liquid crystal device at the beginning of the claim prior to stating what this device includes. Also, claim 1 now includes the term "absolute value" when defining the twist angles of both the twisted phase difference board and the liquid crystal device. The addition of this term is at the suggestion of the Examiner. It is submitted the rejections on 35 U.S.C. § 112, first and second paragraphs, can now be withdrawn. In claim 14, the challenged word "preferential" has been deleted. Throughout the claims, the internal numerals have been deleted, grammatical changes have been made, and the word "characterized" replaced.

In general, the direction of a preferential viewing angle is the direction toward the center of the twisted angle of a liquid crystal display as shown in this diagram:



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(In this diagram, the "orientation direction" numerals are taken from the "Final 3" column of Fig. 3 of the subject application.)

The invention covered in claim 14 is a liquid crystal device in which the direction of a viewing angle tilts by 45 degrees from the six o'clock direction (or the twelve o'clock direction) of the device panel, as shown in this diagram. This can be realized by setting the orientation of the liquid crystal molecules as shown, for example, in the above diagram. As a result, the liquid crystal apparatus of the present invention has a high contrast as noted in the specification. With respect to this point, "2:30" in claim 14 is in error and has been corrected to "1:30."

Claims 1, 2, 4, 9, and 10 stand rejected under 35 U.S.C. § 102(b) as anticipated by Shigeki et al., of record, and claim 11 stands rejected as obvious under 35 U.S.C. § 103(a). Both rejections are respectfully traversed.

In the Response to Arguments described on page 8 of the Office Action, the Examiner states "Applicant further states 'when a compensation board is used having a twisted angle of  $200^\circ$ , as shown in Example 3 of Table 3, a STN liquid crystal cell having twisted angle of  $-230^\circ$  would be selected to form a liquid crystal device having a good white and black display'."

Applicants did not state in the discussion of Shigeki et al. that a STN liquid crystal cell having a twisted angle of  $-230^\circ$  would be selected when a compensation board having a twisted angle of  $200^\circ$  is used. Instead, it was stated that a STN liquid crystal cell having a twisted angle of  $-200^\circ$  would be selected when a compensation board having a twisted angle of  $200^\circ$  is used. Accordingly, Shigeki et al. does not teach that the twist angle of the twisted phase difference board is smaller than the twist angle of

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the liquid crystal device, contrary to the Examiner's statement at the top of page 9 of the Office Action.

In the previously submitted partial translation of Shigeki et al., this document discloses in Part A that the twist angle of a phase compensation liquid crystal layer be reverse to the twist angle ( $\alpha$ ) of a STN liquid crystal cell, that is,  $-\alpha$ . This translation in Part B indicates that a STN liquid crystal cell should have optical parameters which match the optical parameters of a compensating board formed on the STN liquid crystal cell. Shigeki et al. thus uses a STN liquid crystal cell having the same twist angle, but in the opposite direction, as that of a compensating board in order to carry out the experiments shown in Table 3. It is reasonable to conclude that a STN liquid crystal cell having a twist angle of  $-200^\circ$  is used in example 3 shown in Table 3 of Shigeki et al., and no teaching or suggestion of  $-230^\circ$  exists except in the subject application.

In the rejection of claim 4, the Examiner relies on application example 6 shown in Table 3 of Shigeki et al. The Examiner selects a retardation  $\Delta n d_1$  of  $0.87 \mu\text{m}$  which appears to be a value taken from a STN liquid crystal cell having a twist angle of  $230^\circ$ . If the Examiner is in agreement, then as mentioned above, it is unreasonable to combine a STN liquid crystal cell having a twist angle of  $-230^\circ$  with a compensation board having a twist angle of  $180^\circ$  based on Shigeki et al.

Assuming for the sake of argument, that the Examiner is correct, the rejection of claim 4 still has no basis. If a STN liquid crystal cell having a twist angle of  $-230^\circ$  is placed under a compensating board having a twist angle of  $180^\circ$ , the absolute value of the difference between the twist angles of the cell and the compensating board

becomes 50°, which is clearly beyond the range defined in claim 1 of the present invention.

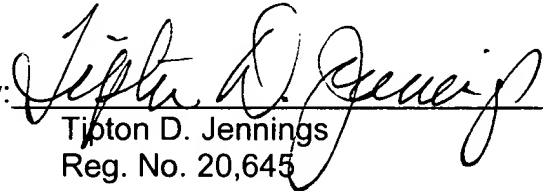
Examination and allowance of all claims 1-5 and 7-14 are earnestly solicited.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: January 2, 2004

By:   
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